## ACKNOWLEDGMENTS

I want to express my gratitude to the many biologists who have cooperated in our survey of the winter stonefly genus Allocapnia in eastern North America. Particular individuals who have been responsible for much of the material reported in this paper are those listed as collectors of the type material. I also want to express appreciation to Mrs. Alice Prickett who made the illustrations.

This project has been supported by a research grant from the National Science Foundation.

## Additions and Corrections to the World List of Type-Species of Chloropidae (Diptera)

CURTIS W. SABROSKY \*

In 1941 I published "An annotated list of genotypes of the Chloropidae of the world (Diptera)" (Ann. Ent. Soc. Amer. 34: 735–765, with minor corrections in 1942, loc. cit. 35: 478). A few corrections are necessary, a few old genera have been found to belong to the Chloropidae, and a few additional genera have been published since that time. The arrangement of the present supplement is alphabetical under each subfamily, as in the original list; but the format of individual entries has been simplified. Names that are additions to the list are in capital letters. References are given in full only where they are not in the original list.

## SUBFAMILY CHLOROPINAE

ARAGARA Walker, 1860, Jour. Linn. Soc. London, Zool. 4: 154. 1 species. Type-species, *A. crassipes* Walker (monotypy). This was originally described in Walker's subfamily

<sup>\*</sup> Entomology Research Division, Agric. Res. Serv., U. S. Department of Agriculture, Washington, D. C.

Ortalides. Ochtherisoma Becker, 1911, is a synonym (New synonymy); but the type-species of the two show slight differences. Aragara imitator (Becker) is a new combination. These odd chloropids, with raptorial front legs resembling those of the ephydrid genus Ochthera, are rarely recorded. I have seen only the holotypes of the two type-species and the four specimens of Ochtherisoma imitator recorded from Luzon and Samar in the Philippines, by Frey, 1923, Notulae Ent. 3: 72.

CENTEMA Collin, 1911, Ent. Monthly Mag., ser. 2, 22: 146. Invalid emendation for *Cetema* Hendel, but not formally proposed ("surely he [i.e., Hendel] meant to have written *Centema*").

Chlorops Meigen, 1803: I am indebted to J. R. Vockeroth for calling my attention to the long-overlooked fact that Illiger, 1807, in the second edition of Rossi's Fauna Etrusca, vol. 2, p. 483, was actually the first to associate a nominal species with the generic name Chlorops, antedating the work of Meigen, 1830. This species, Musca umbelliferarum Scopoli, 1763, is then, technically, the type-species of Chlorops by subsequent monotypy. Credited to Schrank, 1803, it has been carried in synonymy for many years, first under Chlorops nasuta (Schrank, 1781) and later, with nasuta, under C. pumilionis (Bjerkander, 1778).

In Opinion 348 (1955), the International Commission on Zoological Nomenclature designated *C. pumilionis* as the typespecies, under the Plenary Powers; but neither the Commission nor the applicant was then aware of the Illiger action. Perhaps further action by the Commission is required; but if so, *pumilionis* would undoubtedly be confirmed as type-species. It may be noted that if the above specific synonymy were to be recognized, the older *umbelliferarum* would replace *pumilionis*; but the description of the former is so generalized that in my opinion any synonymy is pure guesswork. It would seem preferable to regard *umbelliferarum* as a species dubium in the genus *Chlorops*.

Ectecephala Macquart: 1851, not "1850 (1851?)."

EURIPARIA Nartshuk, 1963, Ent. Oboz. 42: 671. Error for Euryparia.

Haplegis Loew: In my list, I accepted the action of Coquillett, 1910: "Type, Chlorops diadema Meigen, the first species, by present designation." However, diadema was not an originally included nominal species; the first original species was H. rufifrons Loew. Undoubtedly Coquillett was following the long accepted synonymy, rufifrons = diadema, and perhaps his designation should be construed to be acceptable from his mention of "the first species." If it is unacceptable, no valid statement of the type-species of Haplegis appears to exist. Duda (1933, Fam. 61, in Lindner's Fliegen Palaeark. Region, Lfg. 70, p. 128), in addition to mentioning Coquillett's designation, claimed that Becker (1912) designated Chlorops flavitarsis Meigen. I do not find this designation for Haplegis in the relevant sentence (Becker, 1912, Ann. Mus. Nat. Hung. 10: 126), and even if it were there, it would be invalid, as flavitarsis was also not an originally included nominal species. To fix the matter, and in agreement with the clear intent of Coquillett, I hereby designate as type-species of *Haplegis* the first of the original species, *H*. rufifrons Loew, now a synonym of H. diadema (Meigen).

LAGAROSIA Meijere, 1918, Tijdschr. v. Ent. 60: 338. Lapsus for *Lagaroceras* in the citation "Loxotaenia (Lagarosia) gracilis." Lagarosia was correctly cited on p. 329 as a van der Wulp genus in the Trypetinae.

Loxotaenia Becker, 1911, is preoccupied. See Neoloxotaenia.

Mepachymerus Speiser: Transferred to Chloropinae from the Oscinellinae, with Steleocerus as synonym. The respective type-species are also synonyms: S. lepidopus Becker = M. baculus Speiser. The generic and specific synonymies were published by Sabrosky, 1951, Chloropidae, in Ruwenzori Expedition, 1934–5, vol. 2, p. 723.

MINDA Paramonov, 1956, Ann. and Mag. Nat. Hist., ser. 12, 9: 779. 1 species. Type-species, *M. rubra* Paramonov (original designation and monotypy). Equals *Pemphigonotus* Lamb, 1917 (synonymy published by McAlpine, 1958, Rec.

Austral. Mus. 24: 185). The new family Mindidae is thus a synonym of Chloropidae.

NEOLOXOTAENIA Sabrosky, new name, for Loxotacnia Becker, 1911, Ann. Mus. Nat. Hung. 9: 83, not Herrich-Schaeffer, 1854. Type-species, Lagaroceras gracile Meijere (automatic). Neave's Nomenclator Zoologicus cites Loxotaenia, an emendation for Lozotaenia Stephens, 1829, as dating from Heinemann, [1863]. However, the emendation was first used by Herrich-Schaeffer, 1854, Systematische Bearbeitung der Schmetterlinge von Europa, Heft 65, p. 42. In earlier parts of this work he used the spelling Lozotaenia; but in the systematic cataloguing and indexing of genera and species, in the Systema Lepidopterorum Europae, he switched to Loxotaenia and used it consistently in numerous places.

Ochtherisoma Becker = Aragara Walker, q.v. (New synonymy).

OPSICERAS Séguy, 1946, Encycl. Ent., Ser. B, II, Diptera, 10: 12. 1 species. Type-species, O. bistriatus Séguy (original designation and monotypy), which equals Elachiptereicus abessynicus Becker. The genus equals Elachiptereicus Becker, 1909. The generic and specific synonymies were published by Saborsky, 1951, Chloropidae, in Ruwenzori Expedition, 1934–5, vol. 2, pp. 720, 721.

Oscinis Latreille: Zetterstedt, whose Diptera section of the Insecta Lapponica dates from 1838 (not 1840 as cited by me), designated Musca nasuta Schrank as type-species, but showed Musca lineata Fabricius (an originally included species in Oscinis) in the synonymy of nasuta. This fixes lineata as type-species (International Code of Zoological Nomenclature, Article 69a, iv).

Parectecephala Becker: The type-species should be cited as Oscinis longicornis Fallén, not as Chlorops (or Oscinis) longicornis Zetterstedt as usually cited. Zetterstedt adopted the name from Oscinis lineata var. longicornis Fallén, 1820, Oscinides Sveciae, p. 4.

PLANURIA Meigen, 1826, Syst. Beschr., vol. 5, p. 400. Unavailable name, cited as a manuscript name in synonymy in the combination *Planuria tarsata* under Meigen's new genus and new species, *Homalura tarsata* Meigen.

Platycephala Fallén: The designation by Curtis is the valid one. Both Curtis (1839) and Westwood (1840) designated P. planifrons (Fabricius), which was not itself an originally included nominal species; but Curtis showed P. culmorum Fallén, the first of the two original species, in the synonymy of planifrons. Curtis is construed thereby to have fixed culmorum as type (International Code of Zoological Nomenclature, Article 69a, iv).

PLATYCEPHALISCA Nartshuk, 1959, Ent. Oboz. 38: 472. 1 species. Type-species, *P. nigra* Nartshuk (original designation and monotypy).

PSEUDOTHAUMATOMYIA Nartshuk, 1963, Ent. Oboz. 42: 672. 1 species. Type-species, *P. macrocera* Nartshuk (original designation and monotypy).

STELEOCERELLUS Frey, 1961, Notulae Ent. 41: 35, as subgenus of *Mepachymerus*. 12 species. Type-species, *Steleocerus tenellus* Becker (original designation).

Steleocerus Becker, 1910 = Mepachymerus Speiser, 1910 (q.v.).

URANUCHA Czerny, 1903, Wien. Ent. Ztg. 22: 127. 1 species. Type-species, *Geomyza spuria* Thomson (original designation and monotypy). Equals *Thressa* Walker, 1860. The synonymy was published by Sabrosky, 1956, Rev. Franç. d'Ent. 23: 217. The genus was proposed on the unfounded assumption that the species was an asteiid.

## SUBFAMILY OSCINELLINAE

Acanthopeltastes: p. 194, not 104.

Botanobia Lioy: Monotypy (not "two species" with type designation by Coquillett), because one of the two originally included species was a nomen nudum.

CAMPTOSCINELLA Sabrosky, 1951, Chloropidae, in Ruwenzori Expedition, 1934–5, vol. 2, pp. 747 (key), 806. 1 species. Type-species, *C. annulitibia* Sabrosky (original designation and monotypy).

Caviceps Malloch: 2 species, and the type is therefore by original designation only. I overlooked the inclusion, in the discussion, of Oscinella defecta Becker.

CHAETASPIS Nishijima, 1954, Insecta Matsumurana 18: 84. 1 species. Type-species, *C. katoi* Nishijima (original designation and monotypy). Preoccupied by *Chaetaspis* Bollman, 1887. See replacement name *Togeciphus* Nishijima.

Chaetochlorops Malloch: The type-species is by original designation and monotypy.

CHAETOSCELIS Nartshuk, 1963, Ent. Oboz. 42: 675. 1 species. Type-species, *C. rossica* Nartshuk (original designation and monotypy).

CORSICA. Listed as a genus of Chloropidae, subfamily Heringiinae, in Brues, Melander and Carpenter, 1954, Classification of Insects, p. 379, but there is no such genus of insects. "Corsica" is the type locality for *Heringium*, which is an ephydrid, synonym of *Clanoneurum* Becker.

Crassiseta von Roser: I was in error, nomenclaturally, in saying that this genus is "essentially monobasic." There were five nominal species originally included, regarded since the time of Loew (1845) as synonyms under the first named, Oscinis cornuta Fallén (as Meigen). The type-species was designated, as noted in the Annotated List, by Corti, 1909.

Dasyopa Malloch: Vol. 13, not 12.

ECHINIA Paramonov, 1961, Ann. and Mag. Nat. Hist., ser. 13, 4: 97–100. 1 species. Type-species, *E. bisegmenta* Paramonov (original designation and monotypy). Equals *Anatrichus* Loew, 1860 (synonymy published by Sabrosky, 1962, Ann. and Mag. Nat. Hist., ser. 13, 4 (1961): 559). The new family Echiniidae is thus a synonym of Chloropidae.

Epicelyphus Becker, 1911 = Nomba Walker, 1859 (q.v.).

Eribolus Becker: The type-species, sudeticus Becker, has been found to be a synonym of E. nana (Zetterstedt) [Oscinis].

FIEBRIGELLA Duda, 1921, Tijdschr. v. Ent. 64: 123, 125, 143. 1 species. Type-species, *F. verrucosa* Duda, by original designation (as "n.gen.n.sp.," p. 143) and monotypy. I have not seen the type, but Willi Hennig has informed me that it is "probably a chloropid."

HYPERATES Collart, 1934, Rev. Zool. Bot. Africaines 26: suppl. vol. 11: 11. Apparently a lapsus or printer's error for *Hippelates*.

KWAREA Sabrosky, 1954, Bull. Brooklyn Ent. Soc. 49: 44. 1 species. Type-species, *K. pallidihirta* Sabrosky (original designation and monotypy).

Melanochaeta Bezzi: Vol. VI, not V. This was proposed as a new name to replace Pachychaeta [sic] Bezzi, 1895, not Loew, 1845. Actually Bezzi's genus was Pachychoeta, but it is in turn preoccupied by Pachychoeta Bigot, 1857, and the new name is still appropriate.

Mepachymerus Speiser: Transferred to Chloropinae, q.v.

MERODONTA Malloch, 1940, Proc. Linn. Soc. N.S. Wales, 65: 261 (key), 263. 1 species. Type-species, *M. crassifemur* Malloch (original designation and monotypy).

MIMOSEPSIS Sabrosky, 1951, Chloropidae, *in* Ruwenzori Expedition, 1934–5, vol. 2, pp. 744 (key), 748. 1 species. Type-species, *M. mallochi* Sabrosky (original designation and monotypy).

MIRMEMORPHA Dufour, 1833, Ann. des Sci. Nat. 30: 220. Error for *Myrmemorpha* Dufour, 1833, loc. cit.: 218.

Myrmecomorpha (emendation of Myrmemorpha Dufour) actually dates from Blanchard, 1840, Hist. nat. des Insectes (= vol. 3 of Castelnau's Hist. nat. des Animaux Articulés), p. 629, prior to the use by Agassiz, 1846, as given in the Annotated List and in Neave's Nomenclator Zoologicus.

Neoelachiptera Séguy: The type species is lerouxi, not lerouri.

NOMBA Walker, 1859, Jour. Proc. Linn. Soc. London, Zool., 4: 169. 1 species. Type-species, *N. tecta* Walker (monotypy). *Epicelyphus* Becker is a synonym. The long-lost type of Walker's species was recently discovered in the Hope Department of Entomology at Oxford (K. G. V. Smith and E. Taylor, in press).

OSCINELLOIDES Malloch, 1940, Proc. Linn. Soc. N.S. Wales 65: 262 (key), 267. 1 species. Type-species, Oscinella bispinosa Becker (original designation and monotypy). Equals Lasiopleura Becker, 1910 (New synonymy).

Pachychocta Bezzi, 1895, not Pachychaeta as cited in the Annotated List and as cited by Bezzi himself (1906) in proposing the replacement name, Melanochaeta. The spelling Pachychoeta is also preoccupied, by Bigot, 1857, Ann. Soc. Ent. France, ser. 3, 5: 545, in the Asilidae. The type-species of Pachychoeta Bezzi is by original designation as well as by monotypy; the former was overlooked in Bezzi's introductory discussion.

PARASTIA Pandellé, 1898, Rev. d'Ent. (Caen) 17: special p. 18. No species are cited, but from the description it appeared to me to be based on *Dicraeus raptus* (Haliday). This was kindly verified by Professor Séguy, from the Pandellé collection in the Museum National d'Histoire Naturelle in Paris. Accordingly that species is here designated as type-species of *Parastia*, which disposes of the latter as synonym of *Dicraeus* Loew (New synonymy). The name *Parastia* has generally been overlooked; it is not included in the nomenclators of Neave and Schulze, nor does it appear in the Katalog der Paläarktischen Dipteren.

POLIODASPIS Duda, 1933, Fam. 61, Chloropidae, in Lindner's Fleigen Palaeark. Region, Lfg. 72, p. 245 (Index). Error for *Polyodaspis* Duda. The latter version is used twice on p. 224, where the genus was formally proposed, and on p. 246 in its regular place in the Index, and is undoubtedly the intended spelling.

PROTOSCINIS Cockerell, 1917, Proc. U. S. Natl. Mus. 52: 380. 1 species. Type-species, *P. perparvus* Cockerell (original designation and monotypy). Fossil.

Siphunculina Rondani: Collin (1946, Trans. Roy. Ent. Soc. London 97: 123) has stated that the type-species is Siphonella aenea Macquart, brevinervis Rondani not being described but "having been claimed to be the same as Siphonella aenea." However, contrary to Collin's interpretation, Siphunculina does not fall under Opinion 46 ("Status of genera for which no species was distinctly named in the original publication") but under Opinion 43 ("On the status of genera the type species of which are cited without additional description") and also under Article 16a (vi) of the International Code of Zoological Nomenclature. The case is exactly that of Alloderma and Aphobetoideus, considered in Opinion 43, which "were published in tabular keys, which also contained the designation of the genotype; no additional specific characters were given." Accordingly the type-species is brevinervis Rondani (original designation and monotypy), as stated in the Annotated List. The specific identity of *brevinervis* is uncertain, however, as the brief description could apply to various species of Siphunculina.

TERRAEREGINA Malloch, 1940, Proc. Linn. Soc. N.S. Wales 65: 261, 268, 270. Error (or emendation?) for *Terraere-ginia* Malloch, 1928.

TOGECIPHUS Nishijima, 1955, Insecta Matsumurana 19: 53. New name for *Chaetaspis* Nishijima, 1954, not Bollman, 1887. Type-species, *Chaetaspis katoi* Nishijima (automatic).

TYLOPTERNA Bezzi, 1916, Philippine Bur. Sci., Monog. 10: 31. 1 species. Type-species, T. monstrosum Bezzi (original designation and monotypy). This was originally described as an aberrant ortalid (i.e., Otitidae), and was subsequently placed by Frey in the platystomatid subfamily Plastotephritinae. Specimens in the U. S. National Museum show the species to be clearly a chloropid, albeit a most unusual one. A note on this was published by Sabrosky (1951, Proc. Ent. Soc. Wash. 53: 49).